

HANDBOOK OF PHONOLOGICAL DATA
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

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	790 Zoque	790 Zoque	790 Zoque
790	01 p ⁰¹ *[b]	[d/z-hacek] 02 60 12 f (loan)	24 h-nasalized ³⁵ (surface)
790	02 b ⁰² 30 60 (allo,loan) */p/	13 s [z] 62	
790	03 t ⁰¹ *[d] [t-unreleased] ⁶¹	14 s-hacek ³² (surface)	51 i ⁰⁷
790	04 d ⁰² 03 30 60 (allo,loan) */t/	15 m	52 epsilon
790	05 c-palatoalveolar ⁰¹ 04 31 (surface) [j-palatoalveolar] 02 04 60	16 n	53 a
790	07 k ⁰¹ 05 *[g]	17 n-palatoalveolar ³² (surface)	54 u ⁰⁷
790	08 g ⁰² 05 30 60 (allo,loan) */k/	18 eng	55 o-mid ⁰⁸
790	09 t/s [d/z] 60	19 l	56 e-mid-trema-nasalized ⁰⁹
790	10 t/s-hacek ⁰¹ 32 (surface)	20 r-flap (loan)	57 yod
		21 r-trill (loan)	58 yod-nasalized ³⁵ (surface)
		22 glottal stop ³³	59 w [beta-palatalized] ⁶³
		23 h ⁰⁶ 34	60 w-nasalized ³⁵ (surface)

790 \$a Zoque \$b Copainala \$d Penutian \$e S Mexico \$f 20,000 \$g Merritt Ruhlen \$g Jim Lorentz (review) \$g John Crothers (editor)

790 \$a Wonderly, William L. \$b 1951 \$c Zoque II: Phonemes and Morphophonemes \$d IJAL 17:2.105-123 \$q informant \$r unknown

790 \$a LOANS \$A In his phonological analysis Wonderly generally makes no distinction between native words and Spanish loans. Many of the forms cited in Wonderly's articles are in fact Spanish, and it is clear that the native consonant system is radically different from that of Spanish. It is not clear from the examples how deeply the loans have influenced the current phonological pattern of Zoque. Wonderly does not discuss speakers' awareness of native versus Spanish patterns. However, since it is easy to distinguish the Spanish words and patterns, and since it is preferable for the Phonology Archive to reflect native patterns, I have re-analyzed the consonant system to show the native patterns. [JHC]

790 \$a MORPHEME STRUCTURE \$A CV(C)(C); CV(C)CV(C)(C)\$A The structures given are for noun and verb stems. (See Wonderly, Zoque III, IJAL 17.) Prefixes seem to be restricted to the person markers /n, n.yod, yod/, used with both nouns and verbs. Suffixes exhibit a variety of structures, and may begin with a vowel. [JHC]

790 \$a MORPHOLOGICAL STRUCTURE OF WORDS \$A Noun: (person prefix) + stem + (suffix) Verb: (person prefix) + stem + aspect, mood, person, number, and various derivational and "adverbial" suffixes; three or more suffixes are not uncommon; the structure is transparently agglutinative.

790 \$a PHONOLOGICAL WORD \$A Stress seems to be the only strictly phonological characteristic that marks off words. Due to compounding and extensive suffixation (especially in verbs) words may be fairly long.

790 \$a STRESS \$A "A stress group may be said to consist of a single word...or a close-knit phrase.... Stress is usually on the penult of the stress group, with a secondary stress on the first syllable if there are three or more syllables.... This stress is variable within certain limits. Certain forms which usually show penultimate stress may...shift the stress to a different syllable." (p.108)

790 \$a SYLLABLE \$A (C)(C)CV(C)(C) \$A Syllables with initial clusters occur only in word initial position, and are due to prefixation. [JHC]

790 **5** \$A **VOWEL HARMONY** \$A There is a limited type of progressive vowel harmony in Zoque. A front vowel, restricted to a certain class of morphemes, is realized as [i] after high vowels and as [epsilon] after mid or low vowels. Further, a non-front vowel, with similar morphological restrictions, is realized as [i-trema-nasalized] after high or low vowels and as [a] after low vowels. See source, pp.121-122 for details.

790 **01** \$A "Voiceless stops...have varying degrees of aspiration, depending on position. For /t/s-hacek/, the spirant release constitutes the aspiration. The aspiration is most conspicuous in utterance final position.... In clusters which have a voiceless stop before a nasal or another voiceless stop, the aspiration consists of a release or open transition before the second consonant of the cluster." (p.105)

790 **02** \$A "Voiced stops [b, d, j-palatoalveolar, d/z-hacek, g] are strongly articulated after nasals [i.e. in native words, JHC].... They are less strongly articulated in other positions." (p.106)

790 **03** \$A "/d/ is alveolar when after nasals.... In other positions it is dental-alveolar." (p.106)

790 **04** \$A /c-palatoalveolar/ and [j-palatoalveolar] are "produced with the blade of the tongue in alveopalatal position and the tip down." (p.106)

790 **05** \$A /k/ and /g/ are "fronted before front vowels and /yod/, backed before back vowels." (p.106)

790 **06** \$A "/h/ is a glottal spirant with or without friction, depending on the articulatory position." (p.107)

790 **07** \$A /i/ and /u/ vary from (high) "open to close." (p.108)

790 **08** \$A /o-mid/ varies from (mid) "open to close." (p.108)

790 **09** \$A /e-mid-trema-nasalized/ varies "from mid back to high back" and is "usually nasalized." (p.108)

790 **30** \$A The voiced stops and affricates occur in native words only as positional allophones of the voiceless series. In Spanish loans they function as independent phonemes, with "spirantal character...intervocally." (p.106)

790 **31** \$A /c-palatoalveolar/ occurs only as the result of morphophonemic merger of /t/ with an adjacent /yod/. Syllable final /yod/ palatalizes following /t/, but does not merge with it, so that in this position /c-palatoalveolar/ could be considered an allophone of /t/, by strict phonemic principles. [JHC]

790 **32** \$A Most occurrences of /t/s-hacek/, /s-hacek/, or /n-palatoalveolar/ in native words are due to morphophonemic merger of /t/s/, /s/, and /n/ with /yod/. [JHC]

790 **33** \$A "Utterance initial /glottal stop/ is difficult to detect phonetically." (p.106) In syllable final position (except before nasals) /glottal stop/ is generally followed by "a voiced or voiceless partial rearticulation of the preceding vowel." (p.106) In utterance-final position vowels may be followed by a weakly articulated [glottal stop] which has no echo vowel and which disappears before a consonant, unlike the /glottal stop/ phoneme. (p.107)

790 **34** \$A "In word final position, especially after mid or low vowels and when unstressed, /h/ is difficult to detect phonetically except by the absence of any glottal affectation.... It becomes more conspicuous when followed by another consonant." (p.107)

790 **35** \$A The phonetic description of /h-nasalized/, /yod-nasalized/, and /w-nasalized/ is difficult to accept at face value. These segments arise only by a merger of the prefix /n/ with a following /h/, /yod/ or /w/, in which case the /n/ is "indeterminate as to point of articulation and is actualized as a nasalization of the /yod, w, h/." (p.107) Perhaps the /n/ is not fully articulated, but still exists as a brief nasalized vowel. [JHC]

790 **60** \$A Stops and affricates are voiced after nasals.

790 **61** \$A /t/ is unreleased before another /t/. (p.105)

790 **62** \$A (In Spanish loans) /s/ is voiced before voiced stops. (p.107)

790 **63** \$A /w/ is realized as [beta-palatalized] before /yod/. (p.107)